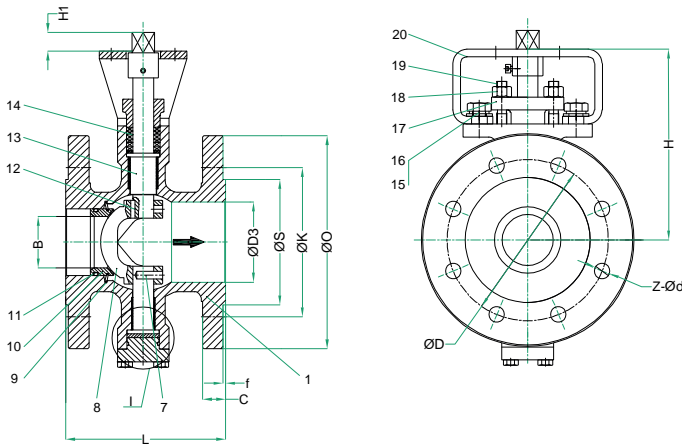


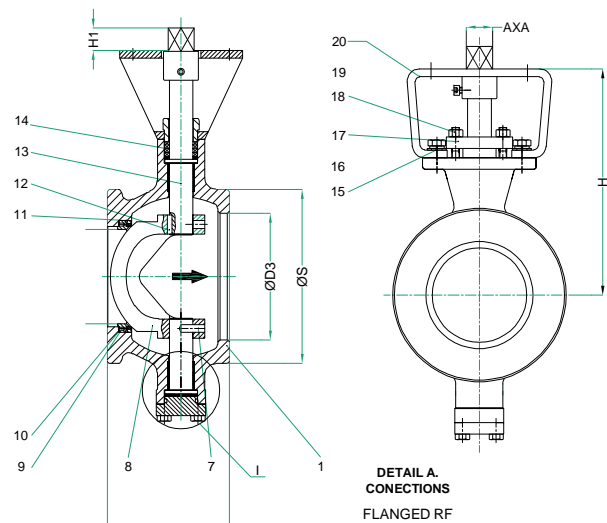
Features / Design

- 1.- **V-Ball Design** – throttling control segmented ball valve. It provides high flow capacity with optimum characteristics for industrial markets including Pulp and Paper, Refinery, Chemical, and Petrochemical Industries.
- 2.- One piece body design reduces leakage paths.
- 3.- **V-Ball allows a strong cutting force and self-cleanness** – cutting of solids between the ball and seats enabling the fluid to pass smoothly without obstructions.
- 4.- V-ball provides large dynamic pass of fluid, including solid particles – **specially suitable for medium containing fiber and tiny solids.**
- 5.- V-ball with top and bottom bearings reduces operational torque.
- 6.- Spring live-loaded metal seats with Viton or graphite backing.
- 7.- Soft seats and metal seats to satisfy various applications. Seats can be easily changed in a few simple steps.
- 8.- Ends: Flanged RF acc. to ASME B16.5, Wafer acc. to ASME B16.15; face to face dimension acc. to ISA S 75.01.

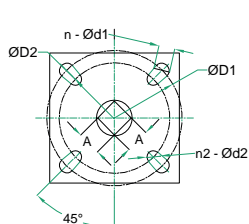
Design for 1" to 16"
(Flanged Connection)



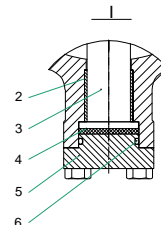
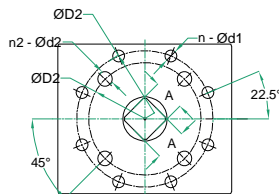
Design for 1" to 10"
(Wafer Connection)



FOR 1" to 14"



FOR 16"



Material List

| NO. | DESCRIPTION | MATERIAL |
|-----|---------------|----------------------|
| 1 | BODY | ATM A351 CF8M |
| 2 | BUSHING | SS304 + PTFE |
| 3 | SHAFT | SS304 |
| 4 | GASKET | PTFE |
| 5 | COVER | ASTM A351 CF8M |
| 6 | O-RING | FKM |
| 7 | PIN | VITON |
| 8 | BALL | ASTM A351 CF8M + Cr |
| 9 | SPRING | 17-7PH |
| 10 | SEAT | ASTM A182 F304 + STL |
| 11 | O-RING | FKM |
| 12 | KEY | SS304 |
| 13 | STEM | 17-4PH |
| 14 | PACKING | PTFE |
| 15 | BOLT | ASTM A193 B8 |
| 16 | WASHER | SS304 |
| 17 | PACKING GLAND | ASTM A351 CF8M |
| 18 | BOLT | ASTM A193 B9 |
| 19 | NUT | ASTM A194 8 |
| 20 | YOKE | ASTM A3 |

Dimensions - Cv, Torque, Weight

| SIZE | CV (US gpm) | TORQUE (US gpm) | WEIGHT (Lb) |
|--------|----------------|--------------------|----------------|
| 1" | 27.0 | 309.776 | * |
| 1 1/4" | 47.0 | 354.029 | * |
| 1 1/2" | 70.0 | 601.850 | * |
| 2" | 110.0 | 796.566 | * |
| 2 1/2" | 170.0 | 885.073 | * |
| 3" | 280.0 | 1239.103 | * |
| 4" | 470.0 | 1327.610 | * |
| 5" | 700.0 | 1770.146 | * |
| 6" | 780.0 | 2655.220 | * |
| 8" | 1720.0 | 4425.366 | * |
| 10" | 2100.0 | 7965.659 | * |
| 12" | 3800.0 | 12391.025 | * |
| 14" | 6440.0 | 17701.465 | * |
| 16" | 8510.0 | 25667.124 | * |

NOTE: * Please consult with manufacturer.

Dimensions (inches)

| SIZE | L (in) | L (in) | B (in) | C (in) | D (in) | S (in) | S2 (in) | D3 (in) | d (in) | f (in) | Z (in) | Ø (in) | H (in) | H1 (in) | A (in) | D1 (in) | D2 (in) | n (in) | Ød1 (in) | n2 (in) | Ød2 (in) | ISO5211 |
|--------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|------------|-----------|-------------|------------|-------------|---------|
| 1" | 4.016 | 1.969 | 0.787 | 4.331 | 3.126 | 2.000 | 2.559 | 1.496 | 0.457 | 0.079 | 4 | 0.630 | 5.157 | 0.709 | 0.551 | 2.756 | 1.969 | 4 | 0.354 | 4 | 0.276 | F05/F07 |
| 1 1/4" | 4.016 | 2.362 | 0.984 | 4.528 | 3.500 | 2.500 | 3.071 | 1.772 | 0.520 | 0.079 | 4 | 0.630 | 5.551 | 0.709 | 0.551 | 2.756 | 1.969 | 4 | 0.354 | 4 | 0.276 | F05/F07 |
| 1 1/2" | 4.488 | 2.362 | 1.260 | 4.921 | 3.874 | 2.874 | 3.228 | 1.969 | 0.579 | 0.079 | 4 | 0.630 | 5.433 | 0.709 | 0.551 | 2.756 | 1.969 | 4 | 0.354 | 4 | 0.276 | F05/F07 |
| 2" | 4.882 | 2.953 | 1.575 | 5.906 | 4.752 | 3.626 | 3.937 | 2.441 | 0.642 | 0.079 | 4 | 0.709 | 5.827 | 0.709 | 0.551 | 2.756 | 1.969 | 4 | 0.354 | 4 | 0.276 | F05/F07 |
| 2 1/2" | 5.709 | 3.937 | 2.165 | 7.087 | 5.500 | 4.126 | 4.646 | 3.031 | 0.705 | 0.079 | 4 | 0.709 | 6.417 | 0.709 | 0.551 | 2.756 | 1.969 | 4 | 0.354 | 4 | 0.276 | F05/F07 |
| 3" | 6.496 | 3.937 | 2.559 | 7.480 | 6.000 | 5.000 | 5.315 | 3.661 | 0.768 | 0.079 | 4 | 0.709 | 8.071 | 1.004 | 0.669 | 4.016 | 2.756 | 4 | 0.472 | 4 | 0.354 | F07/F10 |
| 4" | 7.638 | 4.528 | 2.992 | 9.055 | 7.500 | 6.189 | 6.220 | 4.528 | 0.957 | 0.079 | 8 | 0.709 | 8.465 | 1.004 | 0.669 | 4.016 | 2.756 | 4 | 0.472 | 4 | 0.354 | F07/F10 |
| 5" | 7.638 | 5.079 | 3.937 | 10.039 | 8.500 | 7.311 | 7.244 | 5.276 | 0.957 | 0.079 | 8 | 0.866 | 9.055 | 0.984 | 0.866 | 4.016 | 2.756 | 4 | 0.472 | 4 | 0.354 | F07/F10 |
| 6" | 9.016 | 6.299 | 4.961 | 11.024 | 9.500 | 8.500 | 8.465 | 6.457 | 1.020 | 0.079 | 8 | 0.866 | 10.630 | 1.181 | 1.063 | 4.921 | 4.016 | 4 | 0.551 | 4 | 0.472 | F10/F12 |
| 8" | 9.567 | 7.874 | 6.220 | 13.583 | 11.752 | 10.626 | 10.551 | 8.110 | 1.142 | 0.079 | 8 | 0.866 | 11.890 | 1.181 | 1.063 | 4.921 | 4.016 | 4 | 0.551 | 4 | 0.472 | F10/F12 |
| 10" | 11.693 | 9.449 | 7.795 | 15.945 | 14.252 | 12.748 | 12.795 | 10.236 | 1.205 | 0.079 | 12 | 1.024 | 14.370 | 1.575 | 1.063 | 5.512 | 4.921 | 4 | 0.709 | 4 | 0.551 | F12/F14 |
| 12" | 13.307 | / | 9.843 | 19.094 | 17.000 | 15.000 | / | 12.441 | 1.268 | 0.079 | 12 | 1.024 | 16.142 | 1.575 | 1.063 | 6.496 | 5.512 | 4 | 0.866 | 4 | 0.709 | F14/F16 |
| 14" | 15.748 | / | 11.102 | 21.063 | 18.752 | 16.252 | / | 13.780 | 1.394 | 0.079 | 12 | 1.181 | 17.441 | 1.575 | 1.417 | 6.496 | 5.512 | 4 | 0.866 | 4 | 0.709 | F14/F16 |
| 16" | 15.748 | / | 12.441 | 23.425 | 21.252 | 18.500 | / | 15.945 | 1.457 | 0.079 | 16 | 1.181 | 18.819 | 1.890 | 1.811 | 7.874 | 6.496 | 8 | 0.709 | 4 | 0.866 | F16/F20 |



How to Order

| VALVE BODY DESIGN (SERIES) | SPECIAL FEATURES | MATERIAL | | | ENDS | CLASS | SIZE ⁽⁵⁾ | | OPERATION |
|-------------------------------------|---------------------------------|---------------------|----------|---------------------------------|-------------------------|-------------|---------------------|--------|---|
| | | BODY ⁽²⁾ | TRIM | SEAT | | | | | |
| 1C Full Port 1 Pc Ball Valve V-Port | NONE None | 2 WCB | 3 316 SS | P PTFE ⁽³⁾ | F Flanged RF W Wafer | 0 ANSI 150# | 01 | 1" | L Manual Lever Operator |
| | O Oxygen Service ⁽¹⁾ | 3 CF8M | 4 304 SS | M Metal to Metal ⁽⁴⁾ | | | 01.25 | 1 1/4" | C Manual Lever Operator with Locking Device |
| | | 4 CF8 | | | | | 02 | 2" | B Bare Shaft |
| | | | | | | | 02.5 | 2 1/2" | G Gear Operator |
| | | | | | | | 03 | 3" | S Spring Return Safety Handle |
| | | | | | | | 04 | 4" | SR Spring Return Sliding Lock |
| | | | | | | | 05 | 5" | O Oval Handle |
| | | | | | | | 06 | 6" | E Economical Stem Extension |
| | | | | | | | 08 | 8" | P Peumatic Actuator |
| | | | | | | | 10 | 10" | E Electric Actuator |
| | | | | | | | 12 | 12" | |
| | | | | | | | 14 | 14" | |
| | | | | | | | 16 | 16" | |

Example:

V-Port Ball Valve, Body & Trim 316 SS, Seats: Metal to Metal, Ends Flanged ANSI Class150#, Size 1" with Lever.

1C33MF001L

NOTES:

- (1) Available for stainless steel valves only.
- (2) Special material on request.
- (3) PTFE available but not recommended thus the main function of segment ball valve is cut off medium & regulate.
- (4) Stellite, Tungsten Carbide, etc.
- (5) Flange type 1"-24" size available.

